Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (currently amended) A rolling element which is made from a steel ~~material which comprises~~ , the steel comprising 0.5 to 1.5 wt% carbon and a total amount of 0.2 to 2.0 wt% of one or more alloy elements selected from the group consisting of V, Ti, Zr, Nb, Ta and Hf; ~~and in which~~ wherein 0.4 to 4.0 % by volume of one or more compounds selected from the group consisting of carbides, nitrides and carbonitrides of said alloy elements [[,]] ~~and~~ having an average particle diameter of 0.2 to 5 μm are dispersed,

wherein the rolling element has a rolling contact surface layer, the rolling contact surface layer has a quench hardened layer which has been subjected to induction hardening, the quench hardened layer has a martensite parent phase and [[the]] ~~soluble carbon concentration of~~ [[a]] the martensite parent phase ~~of a rolling contact surface layer~~ [[to]] has a soluble carbon

concentration of 0.3 to 0.8 wt%, ~~the martensite parent phase having been subjected to induction hardening and low temperature tempering~~[[,]] and

~~wherein~~ one or more of said carbides, nitrides and carbonitrides are dispersed in an amount of 0.4 to 4.0% by volume within the martensite parent phase.

Claim 2. (currently amended) The rolling element according to claim 1, wherein 2 to 15% by volume of cementite particles containing 2.5 to 10wt% Cr as an average composition ~~disperse~~ are dispersed in the martensite parent phase of the rolling contact surface layer.

Claim 3. (currently amended) The rolling element according to claim 2, wherein prior austenite grains in a quench hardened layer are ~~fined~~ refined to have a particle size equal to or greater than the level of ASTM No. 10 and wherein the amount of retained austenite is adjusted to 10 to 50% by volume.

Claim 4. (currently amended) The rolling element according to claim 1, wherein said steel ~~material~~ further comprises 0.5 to 3.0 wt% Si, 0.20 to 1.5 wt% Al or 0.5 to 3.0 wt% (Si + Al), and one or more elements selected from the group consisting of Mn, Ni, Cr, Mo, Cu, W, B, and Ca, unavoidable impurity elements ~~such~~ [[as]] selected from the group consisting of P, S, N and O, and [[the]] a balance ~~substantially consisting~~ of Fe.

Claim 5. (currently amended) The rolling element according to claim 4, wherein said steel ~~material~~ further ~~comrises~~ comprises 0.3 to 1.5 wt% Ni and 0.2 wt% or more Al.

Claim 6. (currently amended) The rolling element according to claim 5, wherein cementite and retained austenite ~~disperse~~ are dispersed in [[a]] the quench hardened layer [[of]] ~~the steel material~~.

Claim 7. (currently amended) The rolling element according to claim 4, wherein said steel ~~material~~ further comprises 0.3 to 1.5 wt% Cr and one or more alloy elements selected from the group

consisting of 0.2 to 1.5 wt% Mn; 0.5 wt% or less Mo; and 0.5 wt% W or less.

Claim 8. (currently amended) The rolling element according to claim 7, wherein cementite and retained austenite ~~disperse~~ are dispersed in [[a]] the quench hardened layer [[of]] ~~the steel material~~.

Claim 9. (currently amended) The rolling element according to claim 1, wherein the ~~rolling contact surface layer is quench hardened by induction hardening in which rapid cooling is carried out after rapid induction heating is done within 10 seconds in the temperature region of the A1 temperature of the steel material to a quenching temperature of 900 to 1050~~ [[°C]]

quench hardened rolling contact surface layer is formed by preheating the steel at room temperature or at a temperature equal to or lower than the A1 temperature, then the steel is subjected to induction hardening in which rapid heating is carried out within 10 seconds by induction heating in a temperature region of the A1 temperature to a quenching

temperature of 900 to 1050°C, and thereafter rapid cooling is carried out.

Claim 10. (currently amended) The rolling element according to claim 9, which is a gear used under a slipping condition, wherein the quench hardened layer is formed along the contour of teeth of said gear by quenching ~~subsequent to~~ by means of the induction heating.

Claim 11. (previously presented) The rolling element according to claim 1, which is a gear used under a slipping condition and wherein a compressive residual stress of at least 50 kgf/mm^2 or more remains at the roots of the teeth.

Claim 12. (previously presented) The rolling element according to claim 11, wherein the compressive residual stress is generated by mechanical means.

Claims 13 to 19. (canceled)

Claim 20. (currently amended) A method of producing a rolling element from a steel ~~material which comprises~~ ,

the steel comprising 0.5 to 1.5 wt% carbon; 0.3 to 1.5 wt% Cr; and a total amount of 0.2 to 2.0 wt% of one or more alloy elements selected from the group consisting of V, Ti, Zr, Nb, Ta and Hf [[;]] ~~and in which~~ , wherein 0.4 to 4.0 % by volume of one or more compounds selected from the group consisting of carbides, nitrides and carbonitrides of said alloy elements, and having an average particle diameter of 0.2 to 5 μm and 7.5 to 20 % by volume of cementite are dispersed,

the method comprising subjecting said steel to induction hardening by heating and quenching,

wherein the rolling element has a rolling contact surface layer, the rolling contact surface layer has a quench hardened layer which has been subjected to induction hardening, the quench hardened layer has a martensite parent phase and [[the]] ~~soluble carbon concentration of~~ [[a]] the martensite parent phase ~~of a rolling contact surface layer~~ [[,]] ~~which has been subjected to induction heating quenching and low temperature tempering~~ [[,]] ~~is adjusted~~ [[to]] has a soluble carbon concentration of 0.3 to 0.8 wt% and

wherein 0.4 to 4.0% by volume of one or more of said carbides, nitrides and carbonitrides and 2 to 15% by volume of cementite are dispersed within the martensite parent phase.

Claim 21. (currently amended) The method of producing a rolling element according to claim 20, wherein by use of a steel ~~material~~ in which the Cr concentration of the cementite has been adjusted to 2.5 to 10 wt% and which has been subjected to a thermal treatment for spheroidizing the cementite, the soluble carbon concentration of the martensite parent phase is adjusted to 0.35 to 0.8 wt%, 2 to 15 % by volume of granular cementite having an average particle diameter of 1.5 μm or less is dispersed in the parent phase, and 10 to 50% by volume of retained austenite is formed.

Claim 22. (currently amended) The method of producing a rolling element according to claim 21, wherein said induction heating/quenching of the rolling contact surface layer of the ~~invention~~ steel is performed such that ~~rapid cooling is carried out subsequently to rapid heating in which the temperature of the~~

~~steel material is raised from its A1 temperature to a quenching temperature of 900 to 1050~~[[°C]] ~~within 10 seconds~~ the steel is preheated at room temperature or at a temperature equal to or lower than the A1 temperature, then the steel is subjected to induction hardening in which rapid heating is carried out within 10 seconds by induction heating in a temperature region of the A1 temperature to a quenching temperature of 900 to 1050°C, thereafter rapid cooling is carried out.

Claim 23. (currently amended) The method of producing a rolling element according to claim 22, the rolling element being a gear used under a slipping condition,

wherein said induction heating/quenching is performed such that an induction-hardened-contour gear having a quench hardened layer formed along the contour of teeth of the gear is produced with a speed of heating at least from the A1 temperature to said quenching temperature being [[to]] 150°C/sec or more.

Claim 24. (canceled)

Claim 25. (previously presented) The method of producing a rolling element according to claim 20, wherein the compressive residual stress of the rolling contact surface layer is increased by mechanical means.

Claim 26. (previously presented) The rolling element according to claim 12, wherein the mechanical means comprises shot peening.

Claim 27. (currently amended) The method of producing the rolling element according to claim 25, wherein the mechanical means comprises shot peening.